

DART AEROSPACE LTD	Work Order:	15349
Description: Crosstube Extrusion (OH-58)	Part Number:	D6005-128
Drawing: D6005 Rev. A	Qty:	23

Step	Location	Procedure	By	Date	qty
1	EXPEDITING	Open W/O	SM	01.10.05	23
2	PURCHASING	Issue P/O: <u>2003176</u> a) Extrude as per Dwg D6005 b) Material: 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) seamless aluminum tube c) Minimum ultimate tensile strength = 77 ksi d) Minimum tensile yield strength = 66 ksi g) Material certification required	U	01.10.05	23
3	RECEIVING	Receive and Inspect for transit damage Ensure Material certification is attached	RL	01.10.05	23
4	QC	Inspect Level 6 Ensure Ensure Material certification comply to Dwg D6005	RE	01.10.12	23
5	FINISHING	Chemical conversion coat as per QSI 005 4.1	JB	01.10.16	23
6	STORES	Identify and Stock	JB	01.10.18	23
7	EXPEDITING	Close W/O Cost / part <u>317.11</u> <u>Sur 01/10/19</u> (23)	JB	01.10.19	

Rev	Date	Change	Revised By	Approved
A	00.11.21	New Issue	EC	
B	00.12.06	Added: Issue P/O	EC	

RELEASED

EC 00.12.06

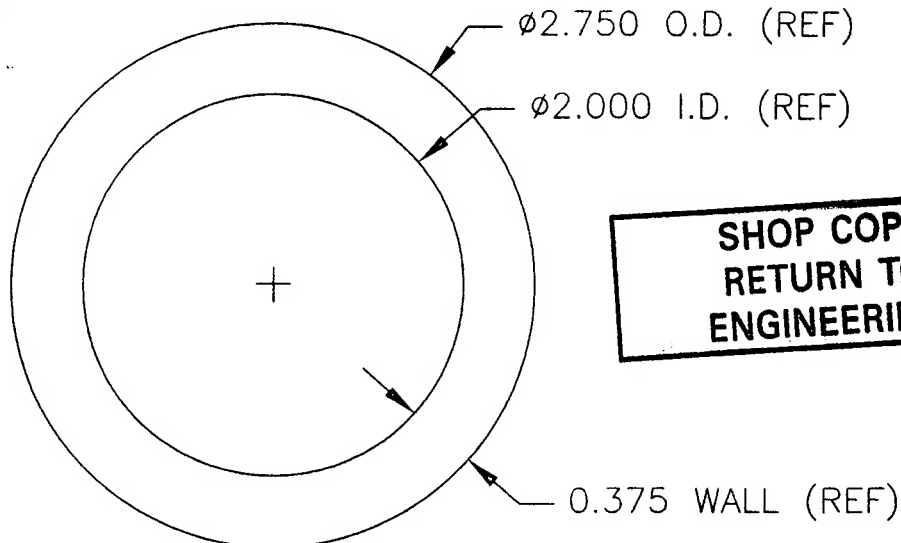


DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>A</i>	APPROVED <i>A</i>	DRAWING NO. D6005	REV. A SHEET 1 OF 1
DATE 00.11.17		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	00.11.17	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24 *CP*

WORK ORDER
NO. 15349



SHOP COPY
RETURN TO
ENGINEERING

NOTES

- 1) D6005-XXX CROSSTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 128" LONG TUBE: D6005-128

CONTROLLED COPY

- 2) MATERIAL: 2.750 OD x 0.375 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi
MINIMUM YIELD TENSILE STRENGTH = 66 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.006 MEAN (± 0.012 INCLUDING OVALITY)
WALL: ± 0.015 MEAN (± 0.038 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.125/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

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Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Oct 05, 2001
11:09 am

Work Order No : 0015349
Project Name : D6005-128
Project For : WK41
Work Order Type : Main
Main WO Number :
House Part Number : D6005-128
Description : Crosstube material
Manufactured : Yes
Amount Req'd : 23
Amount Done : 0
Start Date :
Est Finish Date : 10-12-01
Act Finish Date :
Drawings Req'd : No
Ok for Approval :
Approval Rec'd :

Department Code:
Burden Flags : NNNNNNNN
WO Status : Open
Invoice State : Not Invoiced
Invoice Date :
Invoice Number :
Invoice Amount : 0.00
Order Entry No :
OE Value : 0.00
Est Margin : 0.000%
Actual Margin : 0.000%
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	0.00	0.00		
Margin :	0.000	0.000			
Selling Cost :	0.00	0.00			

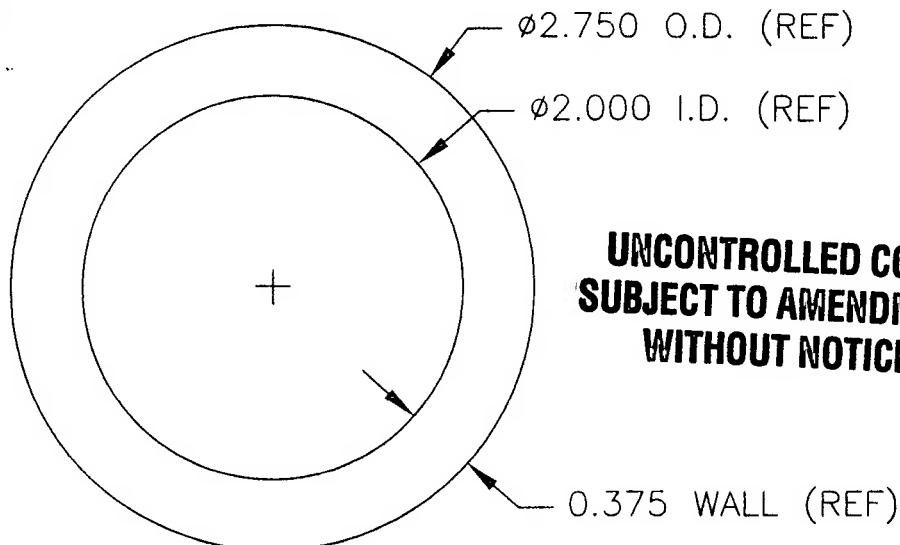
	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	0.00



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>A</i>	APPROVED <i>A</i>	DRAWING NO. D6005	REV. A SHEET 1 OF 1
DATE 00.11.17		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	00.11.17	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24 *A*



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WITHOUT NOTICE**

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- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

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ALCOA EXTRUDED AEROSPACE PRODUCTS

2001648

Cust. P.O. No. / Govt. Contract No.

Code No.

Alcoa No.

IC068041

**Certified
Inspection
Report**
Product

We hereby certify that the material covered by this report has been inspected in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet. Per *Christopher R. Owen*

CHRISTOPHER R. OWEN, QUALITY ASSURANCE MGR

Invoice
No.

Invoice
Date

DRAWN TUBE PRODUCTS HW-T-700/7 B FILED

Item No.	Alloy-Temper	Item Description	Quantity Shipped		No. Of Tests	Direction	Limit	② Test	② Test	② Test	② Test	② Test	② Test	② Test	
			Pcs., Ft. Etc.	Pounds				UTS	TYS	EL%	EC%	FRT	CYS	HRD	
012		2.75 IN OD X .375 IN WALL X 128 IN LN 7075-T6511 QRR NO SEAMLESS ROUND TUBE SHIPMENT PERMITTED ASAP W/E 01-09-29 M7075T6511275XW375 CONTINUOUS MARKED	LOT- F LOT- R LOT- R LOT- F	83524 83524 87873 87873		T6511 LONG. T6511 LONG. T6511 LONG. T6511 LONG.		79.5 79.8 82.0 80.9	71.4 72.1 71.8 70.4	15.3 12.8 16.0 15.7					
Chemical Composition			SI	FE	CU	MN	MG	CR	ZN	TI	AL				OTHERS
Alloy 7075			Max. Min.	0.40 1.2	0.50 1.2	2.0 1.2	0.30 1.2	2.9 2.1	0.28 0.18	6.1 5.1	0.20	REMAINDER EACH 0.05 MAX TOTAL 0.15 MAX			

Date 2001 09 28 B/L No. 19087
Gross Wgt 879

Via DLMS

FOB

I DART AEROSPECE LTD.
N 1270 ABERDEEN
V HAWKSURRY
T ONTARIO
O CANADA K6A 1K7

S DART AEROSPACE LTD.
H 1270 ABERDEEN STREET
P HAWKEBURY
T ONTARIO
O CANADA K6A 1K7

From LAFAYETTE, IN

PAGE 1

① When 2 or more tests per lot are made, the highest and lowest values are reported for each property determined. Single tests are reported in minimim columns.
② See test abbreviation explanation on back of this sheet.

TEST ABBREVIATION EXPLANATION

CYS Compressive yield strength ① KSI

EC Electrical conductivity % IACS

EL Elongation % in 2 Inch or 4D

FRT Fracture toughness ① KSI $\sqrt{\text{Inch}}$

NYR Notch yield ratio

TYS Tensile yield strength ① KSI

UTS Ultimate tensile strength ① KSI

① KSI Kips per square inch. One kip equals one thousand pounds. Mechanical property values show the range of all lots tested for this item to date.